

Red Tide Quick Facts

- Red Tide shellfish closures and openings are the responsibility of the Massachusetts Division of Marine Fisheries.
- Red tide blooms, a natural phenomena, are unusual over a large geographical area of the Massachusetts Coast.
- Because of the extensive monitoring system during a bloom episode, it is safe to eat any shellfish and all other seafood that is served at local restaurants and sold at markets.
- Cooking will not rid the shellfish of the red tide toxin!
- Beach activities, including swimming, are perfectly safe during a red tide bloom.

Remember:

Under no circumstance should any individual harvest shellfish from an area closed to shellfishing!



Questions from Shellfishermen: Commercial, Recreational and Shellfish Farmers

How long will the closure last?

No one knows how long a particular closure will last. That depends on two factors. First, the microscopic plant that is causing the bloom has to die off. This depends on environmental factors and is difficult to predict. Second, the shellfish must clear the toxins from their tissues. This happens naturally but depends on the species of shellfish and the levels in the tissues.

What's involved in the tests?

State officials at the Division of Marine Fisheries test the meats of shellfish, measuring the levels of toxin. Toxin levels cannot exceed 80 micrograms per 100 grams of shellfish meat. Toxin levels must be measured as safe for consumption or under this level on three consecutive samples, over at least a 14 day period. Failure of any test during that period restarts the process and another 14 day of closure

When will they retest our area?

The Division of Marine Fisheries' first responsibility is to protect public health. In large outbreaks or blooms, staff first work on areas not yet tested to ensure they are safe for harvest or need to be closed. As soon as staff can go back to closed areas for retesting they do so.

Is there any aid available (commercial fishermen and shellfish farmers only)?

During past extreme cases of HABs, state and federal authorities have made funds available to aid those making a living from the sea. This is dependent upon the extent of the closure and the duration. If any aide is available it will be made known through the media and will be posted on the Cape Cod Extension web site:

www.capecodextension.org

Remember: Under no circumstance should any individual harvest shellfish from an area closed to shellfishing!

**Cape Cod Cooperative
Extension
Barnstable County
Marine Information**



**Frequently asked
questions about
Red Tide**

www.capecodextension.org
(508) 375-6690

What is Red Tide

Red tide is a name loosely used to describe a bloom of single celled, microscopic plants which contain both red pigments and harmful toxins. Very dense blooms can discolor the water with a reddish tint. Scientists prefer the term harmful algal bloom (HAB). These “blooms” occur during favorable environmental conditions. The organism of a red tide bloom here in the Northeast is known as *Alexandrium fundyense*. Usually blooms are confined to the more northern Gulf of Maine but both a hurricane in the Sept. of 1972 and two nor’easters in May of 2005 brought the red tide into warmer Massachusetts waters, where the blooms intensified.

Why are Shellfish areas closed when there is a red tide.

Certain species of marine organisms, such as shellfish, feed on a variety of microscopic plants. They do this by filtering large quantities of sea water and ‘netting’ out the plant cells. During HABs, the shellfish consume the cells containing the neurotoxins. These neurotoxins are stored in the digestive tract and viscera of the shellfish, and can accumulate to dangerous even lethal levels. In Massachusetts, the concern is that this toxin can cause Paralytic Shellfish Poisoning (PSP). However, the toxin does not affect the shellfish themselves, and when the bloom diminishes, they will eventually rid themselves of the toxin and will once again be safe to consume.

How is red tide detected.

All shellfish-producing states have monitoring programs that test the water for cells and shellfish for contamination. Here in Massachusetts the Division of Marine Fisheries has an extensive PSP monitoring program, which remains vigilant and expands its testing in spring, summer and fall when these “blooms” may occur. For more information see: www.mass.gov/dfwele/dmf/programsandprojects/pspmoni.htm

Does it affect all seafood?

NO. Due to differences among species and their role in the food web, many species of seafood are perfectly safe to eat during a HAB. Typically, in Massachusetts only the harvest of shellfish and carnivorous snails is prohibited. **Unless specified in a public notice, all other species of seafood (e.g., lobster, fish) remain safe to eat.**

Is the seafood I’m buying in the store or restaurant safe to eat?

YES. Seafood dealers and restaurants are well aware of closures and either change their menus or bring in seafood from open areas. HABs are closely monitored, and closures are usually enacted well before toxin levels reach dangerous level.

Can I cook toxic shellfish and make them safe to eat?

NO. Cooking will not make the shellfish safe to eat. The toxin will remain in the tissue and will remain toxic.

How do I know the shellfish are safe to eat once the closure is lifted?

The closure is only lifted after the shellfish are safe to eat based on testing. Only safe shellfish are allowed to go to market.

How do I find out if a shellfish area is open or closed?

Red tide closures are posted at town landings, but to be sure check with the local shellfish constable.

What are the symptoms of PSP?

Symptoms include tingling and numbness of the lips, tongue, and extremities, drowsiness, giddiness, and/or unsteadiness, vomiting and diarrhea.

In extreme cases, respiratory arrest and death can result. If symptoms are observed, call 911. The victim may need artificial respiration and CPR. In most cases after receiving treatment, patients fully recover. Note: PSP is a reportable disease and suspected cases should be reported to Center for Environmental Health, Food Protection Program at: (617) 983-6712

Can I still go to the beach ? Can I swim? What if I swallow water?

Yes you can still go to the beach and swim. PSP does not affect swimmers. The toxin is only dangerous when it is consumed and has been concentrated (such as by shellfish), but does not pose a danger to bare skin. Also, unlike red tides in other areas of the South Atlantic, this toxin does not cause respiratory problems when in or near the water. Finally, the toxins are not concentrated enough to hurt a swimmer who may swallow a little seawater.

Is the water red?

During extreme HABs by red-tinted species, the color can turn red. In Massachusetts, the blooms are typically not dense enough to change the color of the water.

This bulletin was prepared by Barnstable County’s Cape Cod Cooperative Extension using information from: MA Division of Marine Fisheries, MA Dept of Public Health, and the Woods Hole Oceanographic Institution